



The future of real-time  
environmental data monitoring

# Mobile Environmental Laboratory Services



## Multidisciplinary Compatibility

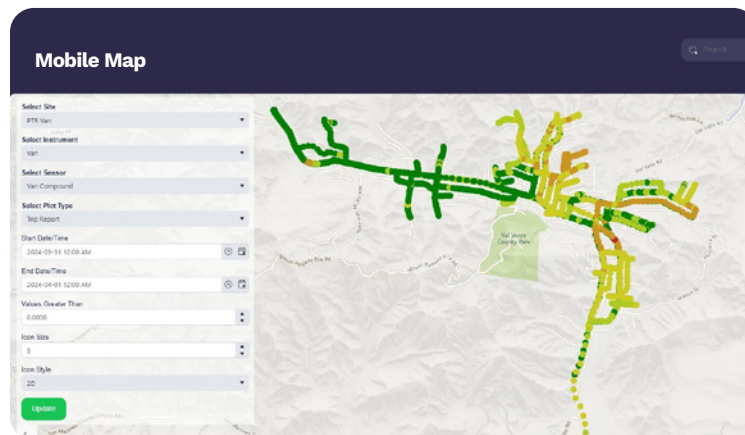
Pioneering in our approaches, Montrose has developed sampling methodologies to accommodate a wide variety of industries and applications including:

- Petrochemical Applications
- Industrial VOC Monitoring
- Emergency Response Testing
- Community Monitoring
- Fenceline Monitoring
- Source Emission Testing
- Vapor Intrusion – Indoor Air Quality
- Industrial Hygiene Analysis
- Process Optimization
- Environmental and Biological Research
- Food and Flavor Process Analysis
- Supported by numerous peer reviewed literature studies
- Data acquisition and analysis based on the ASTM D8460

## Data on the Go with Advanced Mobile Lab Monitoring

Mobile laboratory monitoring involves the use of portable, fully equipped laboratories that can be deployed to different locations for on-site environmental testing and analysis.

Unlike stationary laboratories, mobile labs offer flexibility by allowing for immediate data collection and analysis wherever needed. This approach enhances operational efficiency, supports regulatory compliance, and facilitates prompt responses to environmental issues while reducing the need for multiple fixed testing facilities.



Sensible EDP's real-time data platform enables customers to follow the PTR Van's route via dynamic dashboards, with environmental data continuously updated throughout the monitoring process.

## Revolutionizing On-Site Environmental Monitoring

### Real-Time, Ultra-Low Detection for Organic and Inorganic Compounds

Sensible EDP's PTR-TOF-MS Mobile Laboratory (PTR Vans) offers cutting-edge technology for on-the-go environmental monitoring. This mobile solution provides precise, real-time detection of volatile organic compounds at ultra-low levels, enhancing your ability to make data-driven decisions and ensure compliance.

## Integrated Technology

Sensible EDP's Proton Transfer Reaction Time-of-Flight Mass Spectrometer (PTR-TOF-MS) Mobile Laboratory (PTR Vans) are designed to conduct analyses of air samples in real time, bringing advanced analytical capabilities directly to the client. These advanced, on-the-go solutions combine traditional air monitoring systems with state-of-the-art real-time detection of organic and inorganic compounds at ultra-low levels, providing precise insights exactly where they are needed. **Current capabilities of the Sensible Mobile Monitoring PTR vans include:**

**Gas Chromatography (GC) Interface:** The newest feature of the PTR van includes an integrated gas chromatograph that separates complex mixtures into individual compounds before detection. This allows for the precise identification and quantification of specific compound isomers and other detailed chemical analyses, improving data quality and accuracy.

**Weather and GPS Integration:** The Columbia Weather Systems Magellan MX 500 Weather Station provides meteorological data, such as wind speed and direction, which, combined with GPS data, helps pinpoint the exact location of emissions sources.

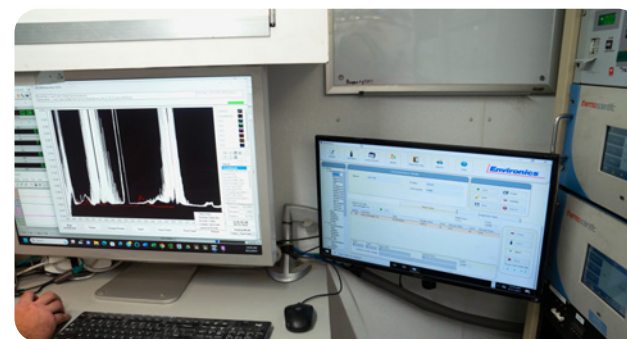
**Fourier Transform Infrared Spectroscopy (FTIR):** Equipped with the MKS Instruments Model 2030 G MultiGas™ Analyzer, the system uses FTIR technology to detect and quantify multiple gas species, enabling the monitoring of various applications such as stack emissions and ambient air quality.

**Calibration and Dilution Systems:** The Environics Model 4000 Gas Mixing System and Millennium Instruments Heated Dilution Systems are used to create accurate calibration gases and perform precise dilution of samples.

**Real-Time Data Collection and Analysis:** The system's advanced data collection and analysis capabilities, including real-time triangulation and multivariate analysis (MVA), enable detailed evaluation of compound sources and odor allocations. This results in more effective and timely interventions.

**Advanced Data Visualization:** Integrated software and mobile applications offer comprehensive data visualization and management. The system supports seamless integration with other monitoring tools, providing a unified view of data and simplifying the analysis and reporting processes.

**Inorganic air pollutants:** Real time monitoring of air pollutants including SO<sub>2</sub>, H<sub>2</sub>S, NO<sub>x</sub>, NO<sub>2</sub> and ammonia using light absorption gas analyzers.



Gas Chromatograph units are configured to implement virtually any EPA or ASTM method, offering unmatched versatility for diverse analytical applications.



Columbia Weather Systems Magellan MX500 Weather Station meteorological data.



Mobile laboratory monitoring brings versatility and efficiency to environmental testing by bringing advanced analytical capabilities to various locations for on-site environmental testing.

### Why Choose Sensible EDP's PTR Mobile Laboratory?

- **Detects and quantifies** thousands of organic and inorganic compounds down to parts per trillion (ppt) levels, providing precise emissions monitoring
- **It brings the testing platform to you**, instead of you collecting and sending the samples off-site
- **Uses GPS and MET data** to map the concentrations of air pollutants for hot spot determination
- **Enables real-time data analysis and response**, reducing delays and improving safety
- **Mobile configuration allows for flexible, versatile applications** across different sites and scenarios
- **Reduces the need for multiple stationary testing sites** and enhancing operational efficiency and improved cost savings
- **Uses multivariate analysis (MVA)** to determine correlations and causations

